

Amendment of the claims under Article 19(1) (Rule 46)

1. (Amended) An information processing apparatus comprising:

a light source;

a converging section for converging light that has been emitted from the light source;

a detecting section for outputting a detection signal showing that the detecting section has sensed that a storage medium has started being loaded;

a shifting section for shifting a focal point of the light by changing positions of the converging section perpendicularly to an information storage layer of the storage medium in accordance with a drive signal;

a photodetecting section for receiving the light that has been reflected from the information storage layer to generate a light amount signal;

a position control section for generating a position control signal to change the positions of the converging section at variable velocities depending on where the

converging section is located;

a focus control section for generating a focus control signal based on the light amount signal such that the focal point of the light is located within a focus controllable range with respect to the information storage layer;

a switching section for selectively outputting either the position control signal or the focus control signal; and
a driving section for outputting a drive signal based on the output signal of the switching section,

wherein in response to the output of the detection signal, the position control section generates a retraction signal, which changes the positions of the converging section away from the storage medium, as the position control signal, and the switching section outputs the retraction signal as the position control signal.

2. (Amended) The information processing apparatus of claim 1, wherein in an interval after the detection signal has started being output and before the storage medium has been loaded completely, the position control section generates the

retraction signal, thereby retracting the converging section to a predetermined retraction position.

3. (Amended) The information processing apparatus of claim 1, further comprising an instructing section for outputting an unload instructing signal that gives an instruction to unload the storage medium,

wherein in an interval after the unload instructing signal has been output and before the storage medium has been unloaded completely, the position control section generates the retraction signal, thereby retracting the converging section to a predetermined retraction position.

4. (Amended) The information processing apparatus of claim 1, wherein the position control section changes the positions of the converging section at a first velocity initially and then at a second velocity, which is lower than the first velocity, once the converging section has reached a first position.

5. (Amended) The information processing apparatus of claim 1, further comprising a monitoring section for determining, by the light amount signal, whether the focal point of the light is inside or outside the focus controllable range,

wherein if the monitoring section has sensed that the focal point has gone beyond the range while the switching section is outputting the focus control signal, then the position control section generates the retraction signal that changes the positions of the converging section away from the storage medium and the switching section outputs the retraction signal as the position control signal.

6. (Amended) The information processing apparatus of claim 1, further comprising a system controller for generating an instruction to stop the focus control operation being performed on the information storage layer,

wherein on receiving the instruction to stop, the position control section generates the retraction signal as the position control signal and the switching section outputs

the retraction signal as the position control signal.

7. (Amended) The information processing apparatus of claim 1, wherein the position control section generates the retraction signal that changes the positions of the converging section in multiple steps.

8. (Amended) A disk controller to be built in a disk drive that operable to read and/or write data from/on a disk, the disk drive including: a light source; a converging section for converging light that has been emitted from the light source; a detecting section for outputting a detection signal showing that the detecting section has sensed that a storage medium has started being loaded; a shifting section for shifting the focal point of the light by changing the positions of the converging section perpendicularly to an information storage layer of a storage medium in accordance with a drive signal; a photodetecting section for receiving the light that has been reflected from the information storage layer to generate a light amount signal; and a driving

section for outputting a drive signal in response to a drive control signal,

wherein the disk controller comprises:

a position control section for generating a position control signal to change the positions of the converging section at variable velocities depending on where the converging section is located;

a focus control section for generating a focus control signal based on the light amount signal such that the focal point of the light is located within a focus controllable range with respect to the information storage layer;

a switching section for selectively outputting either the position control signal or the focus control signal as the drive control signal, the switching section outputting the position control signal to shift the focal point of the light to the focus controllable range and then outputting the focus control signal,

wherein in response to the output of the detection signal, the position control section generates a retraction signal, which changes the positions of the converging section

away from the storage medium, as the position control signal, and the switching section outputs the retraction signal as the position control signal.

9. (Amended) An information processing method comprising the steps of:

converging light that has been emitted from a light source using an optical system;

sensing that a storage medium has started being loaded and outputting a detection signal showing the detection;

shifting the focal point of the light by moving the converging position of the light perpendicularly to an information storage layer of the storage medium in accordance with a drive signal;

receiving the light that has been reflected from the information storage layer to generate a light amount signal;

generating a position control signal to change the positions of the optical system at variable velocities depending on where the optical system is located;

generating a focus control signal based on the light

amount signal such that the focal point of the light is located within a focus controllable range with respect to the information storage layer;

selectively outputting either the position control signal or the focus control signal; and

generating a drive signal based on the signal that has been output in the step of selectively outputting,

wherein in response to the output of the detection signal, the step of generating the position control signal includes generating a retraction signal, which changes the positions of the optical system away from the storage medium, as the position control signal, and the step of selectively outputting includes outputting the retraction signal as the position control signal.